

## REMARKS

This application has been reviewed in light of the Office Action dated April 1, 2003. Claims 24, 26, 27, 29, 58, 59 and 62 are presented for examination. Claims 24 and 27 have been amended to define still more clearly what Applicants regard as their invention. Claim 62 has been added to provide Applicants with a more complete scope of protection. Claims 24, 27, and 62 are in independent form. Favorable reconsideration is requested.

Claim 27 and 29 were rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as reasonably to convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Claim 27 was also rejected under Section 112, second paragraph, as being indefinite, as having insufficient antecedent basis for the feature, "said bidirectional general-purpose interface."

Applicants have carefully reviewed and amended claim 27 as deemed necessary to ensure that it conforms fully to the requirements of Section 112, first and second paragraphs, with special attention to the points raised in paragraphs 4-6 of the Office Action. As to the rejection for lack of antecedent basis, Applicants have amended claim 27, and in particular the feature "said bidirectional general-purpose interface" to read "the second bidirectional general-purpose interface". Accordingly, It is believed that the rejections under Section 112, first and second paragraphs, have been obviated.

Claim 27 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,021, 892 (*Kita et al.*). Claims 24 and 59 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kita et al.* in view of U.S. Patent No. 4,989,163 (*Kawamata et al.*), as

well as being unpatentable over *Kita et al.* in view of U.S. Patent No. 5,113,494 (*Menendez et al.*). Claim 26 was rejected under Section 103(a) as being unpatentable over *Kita et al.* in view of *Kawamata et al.*, as applied to claim 24, and further in view of U.S. Patent No. 5,218,458 (*Kochis et al.*), as well as being unpatentable over *Kita et al.* and *Menendez et al.*, as applied to claim 24, and further in view of *Kochis et al.* Claim 29 was rejected under Section 103(a) as being unpatentable over *Kita et al.* in view of *Kochis et al.* Claim 58 was rejected under Section 103(a) as being patentable over *Kita et al.* in view of *Kawamata et al.*, as applied to claim 24, and further in view of U.S. Patent No. 5,900,947 (*Kenmochi*), as well as being unpatentable over *Kita et al.* in view of *Menendez et al.*, as applied to claim 24, and further in view of *Kenmochi*.

As shown above, Applicants have amended independent claims 24 and 27 in terms that more clearly define the present invention. Applicants submit that these amended independent claims and newly added independent claim 62, together with the remaining claims dependent thereon, are patentably distinct from the cited prior art for at least the following reasons.

The present invention is directed to an image processing apparatus and method which allows performing various image processing by connecting the apparatus to a separate computer. The present invention is intended to provide a relatively inexpensive image processing apparatus that is capable of high-speed processing while compatible with various computers.

The aspect of the present invention set forth in claim 24 is to an image processing device. The image processing device includes a scanner, a control unit, a first bidirectional general-purpose interface, and a second bidirectional general-purpose interface. The

scanner reads an image of a document and outputs an image signal. The control unit includes a control circuit adapted for controlling the image processing device and performing image processing necessary for copying on the image signal output from the scanner to provide a first processed image signal. The first bidirectional general-purpose interface transmits the image signal output by the scanner under control of the control unit to an external computer, which performs image processing necessary for copying on the transmitted image signal to provide a second processed image signal. This interface is also for receiving the second processed image signal from the external computer. The second bidirectional general-purpose interface conforms to the same standard as the first bidirectional general-purpose interface, and is adapted for outputting the first processed image signal and the second processed image signal to a printer.

The image processing device of claim 24 has a plurality of modes including a read mode, a print mode, a first copying mode performed in response to a copying designation by a user, and a second copying mode in which the image signal output from the scanner is outputted to the printer without being processed the external computer. In the first copying mode, the image signal from the scanner is transmitted in order of the control unit, the first bidirectional general-purpose interface, the external computer, the first bidirectional interface, the control unit, and the second bidirectional general-purpose interface so as to perform copying based on the second processed image signal. In the second copying mode, the image signal from the scanner is transmitted in order of the control unit and the second bidirectional general-purpose interface so as to perform copying based on the first processed image signal.

One important feature of claim 24 is that in the first copying mode, in response to a copying designation, an image signal from a scanner is transmitted in order of the control

unit, the first bidirectional general-purpose interface, the external computer, the first bidirectional interface, the control unit, and the second bidirectional general-purpose interface so as to perform copying based on the second processed image signal. That is, the first copying mode, in response to a copying designation (depressing copy key 259), includes reading a document, processing the read image data, and printing the processed image data.

The applied art, alone or in combination, is not seen to disclose or suggest the present invention as defined by independent claim 24, particularly with respect to the first copying mode performed in response to a copying designation by a user, where an image signal from a scanner is transmitted in order of the control unit, the first bidirectional general-purpose interface, the external computer, the first bidirectional interface, the control unit, and the second bidirectional general-purpose interface so as to perform copying based on the second processed image signal.

The Office Action cites column 5, lines 63-68 of *Kita et al.* as disclosing the first copying mode of claim 24. Applicants respectfully disagree with this. It is Applicants' understanding that the cited portion of *Kita et al.* merely discloses a list of timings/events (specifically four different events) when the image data codec control portion 69 is operated. However, no relationship between these events is disclosed. The cited passage is not clear as to whether these four events are performed independently or in sequence, and if performed in sequence, the order of the sequence. In contrast, the copying function of claim 24 includes reading a document, processing the read image data, and printing the processed image data performed in response to a copying designation (depressing copy key 259).

The Office Action further alleges that the Image Input Function of *Kita et al.* corresponds to the first copying function of claim 24. Applicants understand the Image Input Function of *Kita et al.* (column 6, line 68 to column 7, line 4) as transmitting image data read by the scanner 2 to the personal computer 8, which displays the image data on the CRT display and/or files the image data in a floppy disk. The Image Input Function, however, lacks the processing of the first copying mode of claim 24, where an image signal is output by a scanner to an external computer which performs image processing necessary for copying on the transmitted image signal to provide a second processed image signal. Nothing has been found in *Kita et al.* that would teach or suggest a first copying mode performed in response to a copying designation by a user, where the image signal from the scanner is transmitted in order of the control unit, the first bidirectional general-purpose interface, the external computer, the first bidirectional interface, the control unit, and the second bidirectional general-purpose interface so as to perform copying based on the second processed image signal, as recited in claim 24.

Accordingly, Applicants submit that claim 24 is clearly patentable over *Kita et al.*, taken alone.

*Kawamata et al.*, *Menendez et al.*, *Kochis et al.*, and *Kenmochi* are not seen to add anything that would overcome the deficiencies of *Kita et al.*. In particular, neither *Kawamata et al.* nor *Menendez et al.* are seen to disclose the recited first copying mode.

Accordingly, claim 24 is believed to be clearly allowable over *Kita et al.*, *Kawamata et al.*, and *Menendez et al.*, taken separately or in any proper combination.

Independent claims 27 and 62 include a feature similar to that discussed above in connection with claim 24. Accordingly, claims 27 and 62 are believed to be patentable for substantially the same reasons as discussed above in connection with claim 24.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

This Amendment After Final Action is believed clearly to place this application in condition for allowance and, therefore, its entry is believed proper under 37 C.F.R. § 1.116. Accordingly, entry of this Amendment After Final Action, as an earnest effort to advance prosecution and reduce the number of issues, is respectfully requested. Should the Examiner believe that issues remain outstanding, it is respectfully requested that the Examiner contact Applicants' undersigned attorney in an effort to resolve such issues and advance the case to issue.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

  
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